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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re application of: Douglas C. Watson

Attorney Docket No.: NIKOP013

Patent: 6,756,706 B2

Issued: June 29, 2004

Title: METHOD AND APPARATUS FOR  
COOLING POWER SUPPLY WIRES USED TO  
DRIVE STAGES IN ELECTRON BEAM  
LITHOGRAPHY MACHINES

10, 653, 775

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**REQUEST FOR CERTIFICATE OF CORRECTION  
OF OFFICE MISTAKE  
(35 U.S.C. §254, 37 CFR §1.322)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Attn: Certificate of Correction

Dear Sir:

**Certificate  
AUG 18 2004  
of Correction**

Attached is Form PTO-1050 (Certificate of Correction) at least one copy of which is suitable for printing. The errors together with the exact page and line number where they occur, and shown correctly in the application filed, are as follows:

**CLAIMS:**

1. In line 1 of claim 26, (column 9, line 46) change "claim 26" to --claim 25--. This appears correctly in the Claims as filed on page 6, paragraph 4, line 1.
  
2. In line 2 of claim 32, (column 10, line 50) change "multi-linear" to --multi-phase linear--. This appears correctly in the Claims as filed on page 8, paragraph 1, line 2.

AUG 19 2004

Patentee hereby requests expedited issuance of the Certificate of Correction because the error lies with the Office and because the error is clearly disclosed in the records of the Office. As required for expedited issuance, enclosed is documentation that unequivocally supports the patentee's assertion without needing reference to the patent file wrapper.

It is noted that the above-identified errors were printing errors that apparently occurred during the printing process. Accordingly, it is believed that no fees are due in connection with the filing of this Request for Certificate of Correction. However, if it is determined that any fees are due, the Commissioner is hereby authorized to charge such fees to Deposit Account 500388 (Order No. NIKOP013).

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP



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~~DEMAR~~ magnetic coils encased in a coolant jacket which encloses the coils and coolant and wherein coolant lines supply coolant to the coolant jacket and include coolant lines for passing coolant into the coolant jacket and at least one coolant return line enabling coolant efflux from the coolant jacket and wherein the process chamber includes electrical leads for supplying electrical current to systems contained within the process chamber, the method comprising:

flowing coolant through the coolant lines;

cooling the electrical leads by passing the electrical leads through the at least one coolant return line whereby the electrical leads are cooled by the coolant within the coolant return line ~~coolant lines whereby the electrical leads are cooled by the coolant.~~

**Claim 26 (cancelled).**

**Claim 27 (currently amended):** A method for cooling electrical leads as in Claim 25 26 wherein the electrical leads for supplying electrical current to systems contained in the process chamber includes electrical leads for supplying electrical current to the stage motor and wherein

cooling the electrical leads for supplying electrical current to the stage motor by passing the electrical leads through the at least one coolant return line whereby the electrical leads are cooled by the coolant.

**Claim 28 (original):** A method for cooling electrical leads as in Claim 27 wherein cooling the electrical leads by passing the electrical leads through the coolant lines for supplying coolant further comprises passing the electrical leads through a plurality of coolant return lines.

**Claim 29 (new): An electron beam projection system comprising:**

at least one process chamber containing therein a vacuum environment, and having therein, at least one movable stage and at least one electric stage motor for moving the stage.

wherein the electrical stage motor includes magnetic coils encased in a coolant jacket which encloses the coils and encloses an electrically non-conductive coolant material.

wherein the coolant jacket includes coolant input lines for supplying coolant to the coolant jacket,

**Claim 33 (new):** The electron beam projection system of Claim 31 wherein the stage motor comprises a multi-phase linear stage motor.

**Claim 34 (new):** The electron beam projection system of Claim 31 wherein contains a vacuum processing environment.

**Claim 35 (new):** The electron beam projection system of Claim 31, wherein said electrical leads are electrically insulated.

**Claim 36 (new):** The electron beam projection system of Claim 31 wherein the coolant comprises gas coolant.

**Claim 37 (new):** The electron beam projection system of Claim 31 wherein the coolant comprises liquid coolant.

**Claim 38 (new):** The electron beam projection system of Claim 31, wherein the coolant comprises a non-conducting coolant material and wherein the electrical leads are not electrically insulated.

(Also Form PT-1050)

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,756,706 B2

DATED : June 29, 2004

INVENTOR(S) : Douglas C. Watson

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

**In the Claims:**

In line 1 of claim 26, "claim 26" should read --claim 25--.

In line 2 of claim 32, "multi-linear" should read --multi-phase linear--.

MAILING ADDRESS OF SENDER:

PATENT NO. 6,756,706

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AUG 19 2004